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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Aloys Wobben

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EXAMINER

WIEHE, NATHANIEL EDWARD

ART UNIT

PAPER NUMBER

3745

MAIL DATE

DELIVERY MODE

06/20/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/516,804	Applicant(s) WOBBEN, ALOYS	
	Examiner Nathan Wiehe	Art Unit 3745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 May 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 20-48 is/are pending in the application.
- 4a) Of the above claim(s) 32-48 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 20-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 May 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. <u>06082007</u> . |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____. | 6) <input type="checkbox"/> Other: _____. |

DETAILED ACTION

Election/Restrictions

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 20-31, drawn to a rotor blade having a specific profile thickness and profile reserve.

Group II, claim(s) 32,33 and 38-48, drawn to a wind turbine blade having a portion fixed to the hub cladding.

Group III, claim(s) 34-37, drawn to a wind turbine blade having a specific profile depth ratio.

The inventions listed as Groups I,II and III do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: The groups not contain a corresponding special technical feature, specifically the use of specific profile thickness and profile reserve, having a fixed blade portion on the hub cladding and using a specific profile depth ratio are mutually exclusive features that do not require any corresponding elements aside from their use on a wind turbine blade.

During a telephone conversation with David Carlson on 8 June 2007 a provisional election was made without traverse to prosecute the invention of Group I, claims 20-31. Affirmation of this election must be made by applicant in replying to this Office action. Claims 32-48 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Drawings

The drawings were received on 14 May 2007. The drawings are accepted.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 20-31 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claim 20 requires that the thickness reserve be in the range of 15% to 40% of the chord and that the greatest profile thickness be in the range of 20 to 45% of the chord. However, it appears that the measurement of the thickness reserve and the greatest profile thickness are identical, and therefore the claim is requiring the same element to be located at two separate points along the chord of the blade. Citing the paragraph beginning page 3, line 24 "the greatest profile thickness T is between about 25% and 40%... of the length of the rotor blade chord 9" and "The thickness reserve TR, that is to say the location in relation to the blade length where the greatest profile thickness occurs". However, the specification goes on to define the thickness reserve with respect to the chord "The thickness reserve TR ... is between about 20% and 30% of the length of the chord...". Since the thickness reserve is a measurement of the location of the greatest profile thickness and they are both defined in the same

coordinates, i.e. percent of chord, they cannot be at two separate locations. Therefore, one of ordinary skill in the art would not be enabled by the specification to construct the rotor blade as claimed without undue experimentation.

Further, Claims 20-31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims are also indefinite since it appears as though they describe the same element, i.e. the greatest thickness, at two locations along the chord.

Additionally, Claim 21 recites the limitation "between 42% and 46%" in line 4. There is insufficient antecedent basis for this limitation in the claim, since claim 20 establishes a range only up to 45%.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 20,21,26,27 and 31, as far as they are definite and understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Tangler et al. (5,562,420), hereinafter "Tangler". Tangler discloses a wind turbine blade (11) having a profile defined by three distinct sections, the innermost profile (31) (Fig. 5 and Column 6, lines 16-48). Extrapolating from the table of Tangler the greatest profile thickness, i.e. the absolute value of the addition of y/c values for both the upper and lower surfaces, is

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located at approximately 30% of the chord length, i.e. x/c . Further, Tangler's profile includes an increased-pressure side and a reduced-pressure side wherein the increased-pressure side has a portion with a concave curvature and wherein the reduced-pressure side has a portion with a substantially straight part (See Fig. 5).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 22-25, 29 and 30, as far as they are definite and understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Tangler et al. (5,562,420), hereinafter "Tangler". Tangler does not disclose the amount or location of the greatest chamber nor the ratio of the length of the reduced-pressure side to the length of the increased-pressure side. Since applicant has not disclosed that having specific chamber dimension or the side length ratio solves any specific problem or is for any particular purpose above the fact that these dimensions produce a desired wind power installation output and it appears that the blades of Tangler would perform equally well with the dimensions as claimed by applicant, it would have been an obvious matter of design choice to modify the blade of Tangler by utilizing the specific chamber and side length ratio as claimed for the purpose of optimizing the desired wind power installation output.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan Wiehe whose telephone number is (571)272-8648. The examiner can normally be reached on Mon.-Thur. and alternate Fri., 7am-4:30pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Look can be reached on (571)272-4820. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Nathan Wiehe
Examiner
Art Unit 3745



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6/14/07